

ROMANOVSKIY, P. I.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow, Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Romanovskiy, P. I. (Moscow). On Integral Transformations Analogous To Laplace Transformations. 98

Rymarenko, B. A. (Leningrad). Some Extremal Problems of the Theory of Monotone Functions. 98-99

Sarymsakov, T. A. (Tashkent). Polynomial Sequences With a Regular Distribution of Zeros. 99

Safronova, G. P. (Leningrad). Application of Orlich Metrics to Some Boundary Problems of the Theory of Analytic Function 99-100

Seleznev, A. I. (Gor'kiy). On Functions Which are Monogenic on Never Dense Closed Sets, and on F_σ Type Sets. 100-101

Sodnomov, B. S. (Ulan-Ude). Consistency of Projectivity of Some Uncommon Set. 101-102

Sokolov, I. G. (L'vov). The Residue of Fourier Series for Differentiable Functions. 102
Card 31/80

ROMANOVSKIY, P.I.

Call Nr: AF 1154949

AUTHOR: Romanovskiy, P.I.

TITLE: Fourier Series. Field Theory. Analytic and Special Functions. The Laplace Transformation. (Ryady Fur'ye. Teoriya polya. Analiticheskiye i spetsial'nyye funktsii. Preobrazovaniye Laplasa)

PUB. DATA: Gosudarstvennoye izdatel'stvo tekhniko-teoreticheskoy literatury, Moscow, 1957, 291 pp., 12000 copies.

ORIG AGENCY: None given.

EDITORS: Solodkov, V.A.; Tech. Ed.: Akhlamov, S.N.

REVIEWER: Yemel'yanov, S.N.

PURPOSE: The book is designed for senior students of higher engineering schools. It can be of interest to aspirants, engineers and teachers.

COVERAGE: See table of contents. The book deals with Russian contributions. There are no references. The personalities mentioned include: Lavrent'yev, M.A.; Shabat, B.V.; and Tolstov, G.P.

Card 1/8

ROMANOVSKIY, P.I.; VOROB'YEV, A.V.

Conditions for boundedness and evaluations of the growth of semi-additive functions. Uch. zap. MOPI 57 no.4:99-106 '57. (MIRA 11:6)
(Algebra, Abstract)

16(0)

PHASE I BOOK EXPLOITATION SOV/3354

Romanovskiy, Pavel Ignat'yevich

Ryady Fur'ye. Teoriya polya. Analiticheskiye i spetsial'nyye funktsii. Preobrazovaniye Laplasya (Fourier Series. Field Theory. Analytical and Special Functions. Laplace Transformations) 2nd ed., enl. Moscow. Fizmatgiz, 1959. 303 p. (Series: Izbrannyye glavy vysshey matematiki dlya inzhenerov i studentov vtuzov) 25,000 copies printed.

Ed.: V.A. Solodkov; Tech. Ed.: V.N. Kryuchkova.

PURPOSE: This book is intended for students of higher mathematics. It will also be of interest to engineers and teachers.

COVERAGE: This is the second edition of a textbook on Fourier series and the Fourier integral, the field theory, analytic functions, special functions, and operational calculus. Physical and technical applications are not given in this text but may be found in the work Metody teorii funktsiy kompleksnogo

Card 1/7

ROMANOVSKIY, P.I.; FIRICHENKOVA, L.T.

Generalized norms and almost-periodicity. Uch.zap.MOPI 77:
213-234 '59. (MIRA 13:5)
(Functions, Periodic)

ROMANOVSKIY, P.I.

Case of exchange of integral signs. Uch. zap. MCPI 96:189-
192 '60. (MIRA 16:7)

(Integrals)

ROMANOVSKIY, Pavel Ignat'yevich; CHERNYSHEVA, L.Yu., red.; BRUDNO,
K.F., tekhn.red.

[Concise general course on mathematical analysis] Obshchii
kurs matematicheskogo analiza v szhatom izlozhenii. Moskva,
Fizmatgiz, 1962. 331 p. (MIRA 15:11)
(Mathematical analysis)

IGNAT'YEVA, Alla Venediktovna; KRASNOSHCHKOVA, Taisiya
Ivanovna; SMIRNOV, Viktor Fedorovich; ROMANOVSKIY,
P.I., prof., red.; TAL'SKIY, D.A., red.

[Course in higher mathematics] Kurs vysshei matematiki.
Moskva, Vysshaia shkola, 1964. 682 p. (MIRA 18:1)

ROMANOVSKIY, P.L.; PIVENSHTEYN, D.I.

New ideas in the organization of train movement on heavy traffic lines. Zhel. dor. transp. 39 no.12:65-67 D '57. (MIRA 11:1)

1. Starshiy dispatcher Permoskogo otdeleniya Sverdlovskoy dorogi (for Romanovskiy).
 2. Glavnyy inzhener sluzhby dvizheniya Sverdlovskoy dorogi (for Pivenshteyn).
- (Railroads--Traffic)

S/125/61/000/004/008/013
A161/A127

AUTHORS: Zhemchuzhnikov, G. V. Romanovskiy, R. G.

TITLE: Static strength of spot-welded joints at normal and low temperatures

PERIODICAL: Avtomaticheskaya svarka, ¹⁴no. 4, 1961, 54 - 60

TEXT: The purpose of the described experiments was to investigate the static strength of spot-welded joints in 6 + 6 and 8 + 8 mm thick steel parts at room temperature as well as below the freezing point. Two series of welded specimens of Ст.3 (St.3) steel were tested with shearing load only, and with shearing load combined with torsion. The joints were made with one, two and three spot welds, and with different eccentricity, as well as without eccentricity. A bath of gasoline with solid CO₂ was used to chill the specimens to -65°C for tests. The specimen temperature rose slightly while being on the 300-ton tension test machine, and attained -55° at the moment of rupture. The temperature was measured with thermocouples. The article includes illustrations of the different joints and tables presenting the results of tests. Generally, the tests proved the following: 1) Ruptures were located in spot welds regardless of the test temperature; 2) The amount of eccentricity had no effect on the maximum rated shear stress in torsion;

Card 1/2

LO0821-66 EWT(d) LJP(c)

ACCESSION NR: AP5021263

UR 0020/65/163/005/1077/1080

AUTHOR: Romanovskiy, R. K.

TITLE: Stability of solutions of the Cauchy problem for linear differential equations of hyperbolic type

SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1965, 1077-1080

TOPIC TAGS: hyperbolic equation, Cauchy problem, differential equation, stability

ABSTRACT: The author proves three theorems related to the boundary value problem

$$\begin{aligned} \partial^2 z / \partial x \partial y - A \partial z / \partial x - B \partial z / \partial y - Cz = f(x, y); \quad z|_{y=\varphi(x)} = p(x), \\ \partial z / \partial x|_{y=\varphi(x)} = q(x). \end{aligned} \quad (1)$$

Here $z(x, y)$, $f(x, y)$, $p(x)$, $q(x)$ are vector-functions whose values belong to the complex Banach space E ; $p(x)$ and $q(x)$ are defined and continuous on (a, ∞) ; $f(x, y)$ is defined and continuous in the region $\Pi\{y \geq \varphi(x)\}$; A , B , C are linear bounded operators acting in E . Boundary value problem (1) is said to be stable in the region Π if to every bounded right part $f(x, y)$ in Π and bounded initial data $p(x)$ and $q(x)$ on (a, ∞) corresponds a bounded solution in Π . Theorem 1. In order for the boundary value problem (1) to be stable in the region Π , it is necessary and sufficient that no point of the set $\bar{K}$ belong to the region $\Pi_1\{x \geq 0, y \geq 0\}$.

Card 1/2

100821-66

ACCESSION NR: AP5021263

$$K \cap \Pi_1 = \phi.$$

(2)

Theorem 2. Let Π' be the region $0 \leq y \leq \varphi(x)$, where $\inf \varphi(x) = -\infty$. In order for the boundary value problem (1) to be stable in the region Π' , it is necessary and sufficient that condition (2) be satisfied. Theorem 3. Let Π' be the region $0 \leq y \leq \varphi(x)$ where $\inf \varphi(x) > -\infty$. In order for the boundary value problem (1) to be stable in the region Π' , it is necessary and sufficient that the spectrum of the operator B lie in the left open half-plane. The author remarks that he is the first to consider stability for solutions of the Cauchy problem of the hyperbolic type. Orig. art. has: 8 formulas.

ASSOCIATION: Odesskiy tekhnologicheskii institut pishchevoy i kholodil'noy promyshlennosti (Odessa Technological Institute of the Food and Refrigeration Industry)

SUBMITTED: 22Jan65

ENCL: 00

SUB CODE: MA

NO REF SOV: 004

OTHER: 000

Card

2/2

ROMANOVSKY, S.M.

Stability of solutions to the Cauchy problem for linear hyperbolic differential equations. Dokl. AN SSSR 163 no.5:1077-1080 Ag '65.

(MIRA 18:8)

1. Odesskiy tekhnologicheskii institut pishchevoy i khimicheskoy promyshlennosti. Submitted January 18, 1965.

ROMANOVSKIY, R.M.; KAZANSKAYA, M.V.; LIPMANOVICH, S.G.

Outcome of labor complicated by anomalies in its intensity for the mother and fetus. Vop. okh. mat. i det. 6 no.10:58-63 O '61.

(MIRA 14:11)

1. Iz kafedry akusherstva ginekologii (zav. - prof. I.I.Yakovlev)
I Leningradskogo meditsinskogo instituta imeni akademika I.P.Pavlova
(dir. A.I.Ivanov).

(LABOR, COMPLICATED)

ROMANOVSKIY, R.M.

The past and the present in the training and scientific and clinical activities of the Department of Obstetrics and Gynecology of the First Leningrad I.P.Pavlov Medical Institute (1899-1959)
Sbor. nauch.trud. Kaf.akush. i gin. 1 IMI no.2:7-67'61.

(MIRA 16:7)

(~~LENINGRAD~~—~~OBSTETRICS~~—~~STUDY AND TEACHING~~)

(~~LENINGRAD~~—~~GUNECOLOGY~~—~~STUDY AND TEACHING~~)

KRACHKOVSKAYA, M.V.; ROMANOVSKIY, R.M.

"Intracranial trauma" in newborn infants and its causes. Sbor.
nauch. trud.Kaf.akush. i gin. 1 LMI no.2245-252'61.

(MIRA 16:7)

(FETUS--DISEASES)

BULAVINTSEVA, A.I., kand. med. nauk; KAZANSKAYA, N.I., kand.med. nauk;
KASHINSKIY, A.V., kand. med. nauk; LIPMANOVICH, S.G., kand.
med. nauk; NARBUT, Ye.I., kand. med. nauk; POKROVSKIY, V.A.,
zssluzhenny deyatel' nauki RSFSR, prof.; ROMANOVSKIY, R.M.,
kand. med. nauk; TUMANOVA, Ye.S., prof.; YAKOVLEV, I.I.,
zssluzhenny deyatel' nauki RSFSR, prof.; LANKOVITS, A.V., prof.,
nauchnyy red.; PERSIANINOV, L.S., prof., otv. red.; BEKKER, S.M.,
prof., red.; BELOSHAPKO, P.A., prof., red. [deceased]; ZHAKIN,
K.N., prof., red.; ZHORDANIA, I.F., prof., red.; LEBEDEV, A.A.,
prof., red.; MANENKOV, P.V., prof., red.; STEPANOV, L.G., kand.
med. nauk, red.; SYROVATKO, F.A., prof., red.; FIGURNOV, K.M.,
prof., red.; PORAY-KOSHITS, K.V., red.; LANKOVITS, A.V., red.;
SENCHILO, K.K., tekhn. red.

[Multivolume manual on obstetrics and gynecology] Mnogotomnoe
rukovodstvo po akusherstvu i ginekologii. Moskva, Gos.izd-vo
med. lit-ry. Vol.6. 1961. 679 p. (MIRA 15:4)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for
Persianinov, Beloshapko, Figurnov).
(OBSTETRICS—SURGERY) (GYNECOLOGY, OPERATIVE)

ROMANOVSKIY, S.A., inzh.; DEMCHENKO, A.Ye., inzh.; RYKOV, M.I., inzh.

Testing a trial specimen of the K-8N cutter-loader in the
"Cherkasskaya-Severnaya" mine no.1. Ugol' Ukr. 3 no.10:
34-36 0 '59. (MIRA 13:2)
(Kuznetsk Basin--Mining machinery)

ROMANOVSKIY, S.A.

Category : USSR/Atomic and Molecular Physics - Heat

D-4

Abs Jour : Ref Zhur -- Fizika, No 3, 1957, No 6336

Author : Romanovskiy, S.A.

Title : Investigation of the Heat Transfer and Resistances of Tube
Bundles in a Transverse Stream of Liquid Drops.

Orig Pub : Izv. Kiyevsk. politekhn. in-te, 1956, 17, 134-142

Abstract : No abstract

Card : 1/1

Romanovskiy S.A.

SOV/124-57-5-5695

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 86 (USSR)

AUTHOR: Romanovskiy, S. A.

TITLE: Concerning the Method for Analog Simulation of Localized Conduit Segments in Heat-transfer Investigations (K voprosu o metode lokal'nogo modelirovaniya)

PERIODICAL: Izv. Kiyevsk. politekhn. in-ta 1956, Vol 17, pp 130-133

ABSTRACT: An account is given of results obtained from an investigation of the heat transfer that occurs in the flow through a staggered bank of circular-section tubes (in which $s_1 = 1.5 d$ and $s_2 = 1.3 d$) and wherein the Reynolds number of the flows investigated varied from 4×10^3 to 60×10^3 . The purpose of the experiments conducted was to test the range of applicability of the so-called "method of localized analog simulation", which is an approximate analog simulation wherein the conditions of similarity are maintained not for an entire system but only for one or more selected portions thereof. The method is used to determine the heat transfer relative to a single tube of a multiple-tube bank, and the result obtained is compared with a corresponding determination arrived at by an analog

Card 1/2

SOV/124-57-5-5695

Concerning the Method for Analog Simulation of Localized Conduit Segments (cont.)

simulation of the entire bank; the two results are in good agreement.

A. A. Gukhman

Card 2/2

ROMANOVSKIY, S. A.

USSR/Fluid Mechanics. Heat transfer

Abs Jour: Ref Zhur-Mekhanka, No 6, 1957, 6814

Author : Romanovskiy, S. A.

Inst :

Title : The study of heat emission and resistance in the case of bundles of tubes in a cross-flow of a liquid.

Orig Pub: Izv. Kievsk. politekhn. in-ta, 1956, 17, 134-142

Abstract: As the result of the experimental investigation of heat emission from "checker-board" lattices of pipes in a cross-flow of liquid, conducted on models with a relative pitch s/d of 1.5, 1.75 and 2.3, in a temperature range from 40° to 90°, and with Reynolds Numbers from 4×10^3 to 9×10^4 , the following formula was obtained:

$$N_f = 0.38 R_f^{0.6} P_f^{0.4} (P_f/P_w)^{0.25} \quad (5)$$

where P is Prandtl's Number. It is shown that the

Card 1/2

USSR/Fluid Mechanics. Heat transfer

Abs Jour: Ref Zhur-Mekhanka, No 6, 1957, 6814

Abstract: dimensionless parameter $(P_f/P_w)^{0.25}$, proposed by M. A. Mikheyev, makes it possible to generalize data on heat emission in the flow of liquids and gases. Experiments in the study of the hydraulic resistance of the pipe clusters were conducted only under isothermal conditions. The results of these experiments are presented in the form of the empirical relationship

$$E = (1.143m - 1.6)(\delta/\delta - 1)^{0.408} R^{-(0.378 + 0.0075m)} \quad (7)$$

where E is Euler's Number, m is the number of rows of pipes in a cluster, and δ/δ is the ratio of the pitch to the diameter.

Card 2/2

ROMANOVSKIY, S. A.

Viscous Liquid and the Boundary Layer

Dissertation: "Investigation of Heat Loss and Resistances of a Bank of Tubes in a Transverse Flow of Viscous Liquid." Cand Tech Sci, Kiev Polytechnic Inst, Kiev, 1953. (Referativnyy Zhurnal -- Mekhanika, Moscow, Mar 54)

SO: SUM 213, 20 Sep 1954

BUTUZOV, A.I.; MAZKA, S.A.; OSNACH, A.M.; ROMANOVSKIY, S.A.; FAYNZIL'BERG, S.N.

Utilizing the physical heat of blast furnace slags. Stal' 22
no.7:668-670 JI '62. (MIRA 15:7)
(Blast furnaces) (Heat regenerators)

ROMANOVSKIY, S. E.

"The thermal processing of materials by the electromagnetic method using currents of industrial frequency."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, 4-12 May 1964.

Inst of Heat & Mass Transfer, AS BSSR.

BALABAYEV, G.M., inzh.; ROMANOVSKIY, S.S., kand. tekhn. nauk

Characteristics of the kinetics of drying moist wood materials in
electromagnetic chambers. Sudostroenie 30 no.2:44-46 P '64.
(MIRA 17:4)

ACC NR: AP7002841

(A)

SOURCE CODE: UR/0233/66/000/004/0107/0112

AUTHOR: Goretskiy, V. P.; Romanovski, S. G.

ORG: none

TITLE: Heat treatment of concrete in an electromagnetic field of commercial frequency

SOURCE: AN AzerbSSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk, no. 4, 1966, 107-112

TOPIC TAGS: concrete, reinforced concrete, heat treatment, electromagnetic field

ABSTRACT: In view of the fact that conventional heating of concrete and reinforced concrete to accelerate its setting consumes approximately 85 - 90% of the total construction time, and does not afford homogeneous setting of the concrete, the authors investigated a method, first studied by them at AN BSSR, for accelerated hardening of concrete and reinforced concrete by using heat generated inside the concrete by ferromagnetic induction in the reinforcing rods and other iron contained in the concrete, without direct contact with the current source. The results have shown that this gives more uniform heating because of the additional heat produced by the hydration of the concrete. The concrete temperatures in this case are 60 - 70C, and both the reinforcing rods and the ambient temperature are 5 - 7° lower. Possible means of applying this method for mass-produced precast concrete products are discussed and their economic advantages are analyzed. The tests have shown that the external electromagnetic field has a strong influence on the chemical reactions occurring during the solidification of the concrete. Best results are obtained at magnetic

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ACC NR: AP7002841

field of 150 - 400 Oe and a temperature of concrete of 50 - 60C. The temperature in the concrete is made more uniform by the electromagnetic field even if additional means of heating are used. If heat treatment without a stage of isothermal heating is used, a 28-day strength exceeding the rated value by 20 - 30% can be obtained. Orig. art. has: 2 figures and 1 table.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 004

Card 2/2

ROMANOVSKIY, Samuil Grigor'yevich; BERDINSKIKH, I.P., kand.
tekhn. nauk, retsenzent

[Induction drying by means of commercial frequency currents] Induktsionnaya suushka tokami promyshlennoi chastoty.
Kiev, Gostekhizdat USSR, 1963. 119 p. (MIRA 18:6)

L 04650-67 ENT(m)

ACC NR: AP6024008

(A)

SOURCE CODE: UR/0201/66/000/002/0125/0126

AUTHOR: Lykov, A. V.; Romanovskiy, S. G.

ORG: Institute of Heat and Mass Exchange, AN BSSR (Institut teplo- i massoobmena AN BSSR)

TITLE: Heat treatment of concrete in an electromagnetic field

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 2, 1966, 125-126

TOPIC TAGS: reinforced concrete, concrete, electromagnetic field, thermal process, heat transfer

ABSTRACT: The authors describe briefly a method and a technology developed at the Institute of Heat and Mass Exchange AN BSSR for accelerated setting of concrete in an electromagnetic field, using commercial-frequency current. The heating of the concrete is produced by induction of the ferromagnetic elements contained in the reinforced and ordinary concrete, and also as a result of the fact that concrete constitutes a relaxation-polarized system with respect to the electromagnetic field, so that heat transfer in the concrete occurs not only under the influence of temperature and concentration gradients, but also under the influence of magnetic and electric field gradients, and also under the influence of differences in the magnetic and electric field intensity vectors at the given instant of time and in the equilibrium state. The method permits a smooth control of the heating of the concrete by continuously regulating the magnetic field intensity. In addition, the external electro-

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L 04650-67

ACC NR: AP6024008

magnetic field, under definite conditions, affects directly also the hydrodynamics, heat and mass exchange, the rate of occurrence of the chemical reactions, and the structural-mechanical properties of the concrete. Tests have established that uniform temperature and moisture-content of the field can be established by this method independently of the symmetry of the reinforcing rods. The method has passed through laboratory tests and is now in use for construction purposes by KAMGESenergostroy. A commercial application was developed jointly by the Institute of Heat and Mass Exchange and by the Glavgidroenergostroy MEIE SSSR, with a productivity of 50,000 m³ annually. A reduction by a factor of 2.5 - 3.5 is claimed for the duration of heat treatment. The strength of the concrete 5 hours after its heat treatment amounts to 75 - 85% of the rated strength. After 28 days, the actual strength greatly exceeds the rated strength (120 - 140%). The electricity per cubic meter of reinforced concrete is 65 - 70 kw-hours. The total cost for heat treatment of 1 m³ of reinforced concrete (initial capital investment and operating cost) is reduced by 1.5 - 2.

SUB CODE: 11, 13/ SUBM DATE: 06Apr66/ ORIG REF: 003

kh

Card 2/2

ROMANOVSKIY, S.G., inzh.

Using commercial frequency for induction drying of wood. Der.
prom. 9 no.9:11-13 S '60. (MIRA 13:9)
(Lumber--Drying) (Induction heating)

ROMANOVSKIY, V., kand.tekhn.nauk; ORLOVA, A., inzh.

Testing synthetic packing materials in the ship mechanism. Mor.
flot 25 no.3:37-38 Mr '65. (MIRA 18:4)

1. Leningradskoye vyssheye inzhenernoye morekhodnoye uchilishche
imeni admirala S.O.Makarova (for Orlova).

ROMANOVSKIY, V., kontr-admiral

Defense against floating mines and torpedo boats. Voenn. znaniya.
35 no.9:22-23 S '59. (MIRA 12:12)
(Mines, Submarine) (Torpedo boats)

ROMANOVSKIY, V., kontr-admiral zapasa

The torpedo is a terrible weapon. Voen.znan. 37 no.7:25-26 J1 '61.
(MJRA 14:6)

(Torpedoes)

ROMANOVSKIY, V., kontr-admiral

"Weapons for underwater assault by V.P. Beloshchitskii, IU. M.
Vaginskii. Reviewed by V. Romanovskii. Starsh.-serzh.
no.4(7):40 Ap '61. (MIRA 14:7)
(Torpedoes) (Mines, Submarine) (Beloshchitskii, V.P.)
(Vaginskii, IU. M.)

ROMANOVSKIY, V.

Matematicheskaya statistika (Mathematical Statistics), GONTI, 1938.

SO: U-3039, 11 Mar 1953

ROMANOVSKIY, V.

Romanovskii, V. A new method for the solution of a homogeneous difference equation with constant coefficients. Doklady Akad. Nauk SSSR (N.S.) 60, 1317-1320 (1948). (Russian)

The difference equation $\phi_{n+1} - a_1\phi_{n+1-1} - \dots - a_n\phi_1 = 0$ may be written in symbolic form $|E\phi - A|\phi^0 = 0$, where E is the square n -rowed unit matrix and

$$A = \begin{pmatrix} a_1 & 1 & 0 & \dots & 0 \\ a_2 & 0 & 1 & \dots & 0 \\ \dots & \dots & \dots & \dots & \dots \\ a_{n-1} & 0 & 0 & \dots & 1 \\ a_n & 0 & 0 & \dots & 0 \end{pmatrix}$$

Let C denote the one-rowed matrix $C = \|\phi_1^0, \phi_2^0, \dots, \phi_n^0\|$, where the ϕ_i^0 are the initial given values of ϕ . Then $\phi_k = (CA^{k-1})$, in which (CA^{k-1}) denotes the sum of the elements of the matrix CA^{k-1} . Denote the distinct roots of $|E\lambda - A| = 0$ by $\lambda_1, \dots, \lambda_s$, with orders $n_1, \dots, n_s$. The author then shows that the solution of the difference equation may be written

$$\phi_k = \sum_{i=1}^s (1/(n_i-1)!) D_{\lambda_i}^{n_i-1} [\lambda_i^{k-1} R_n(\lambda) / a_n(\lambda)]_{\lambda=\lambda_i}$$

in which $a_i(\lambda) = |E\lambda - A|(\lambda - \lambda_i)^{-n_i}$ and

$$R_n(\lambda) = \sum_{k=1}^n \phi_{n+1-k}^0 A_{kn}(\lambda).$$

W. E. Milne (Corvallis, Or)

Source: Mathematical Reviews.

Vol

3

No.

10

1

125
SMW

KRADRASHKOV, A.V., dots.; LARIN, P.I., inzh.; PEVNEV, A.K., aspirant;
PLOTNIKOV, M.G., assistant; ROMANOVSKIY, V.A., assistant;
SKOGOREV, V.P., inzh.

Precision attained in standardizing Invar tapes on inter-
ference and opticommechanical comparators of the Moscow Institute
for Engineers in Geodesy, Aerial Photography, and Cartography.
Trudy MIIGAIK no.36:63-66 '59. (MIRA 13:4)

1. Kafedra vysshey geodezii Moskovskogo instituta inzhenerov
geodezii, aerofotos"yemki i kartografii.
(Measuring tapes--Standards)

ROMANOVSKIY, V. A.

Cand Phys-Math Sci - (diss) "Crystalline structure of glass-formers, and heat capacity at low temperatures, low-temperature heat capacity of crystalline As_2S_3 , Sb_2S_3 , and Bi_2S_3 in connection with their structure and physico-chemical properties." Moscow, 1961. 12 pp; (Ministry of Education RSFSR, Moscow State Pedagogical Inst imeni V. I. Lenin); 200 copies; price not given; (KL, 7-61 sup, 220)

Vitreous State (Cont.)	SOV/5035
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Abreyeva, A.V. Leaching of Fused Vitreous Lanthanide With Aqueous Acid Solutions and the State of the Lanthan in the Structure of Lanthan Glass	425
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Card 18/22	
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Sov/68-59-10-8/24

AUTHORS: Semisalov, Ya.D., Chumak, Ye.M., and Romanovskiy, V.A.

TITLE: Some Experience in Operating Coke Ovens Fired with
a Rich Gas

PERIODICAL: Koks i khimiya, 1959, Nr 10, pp30-31 (USSR)

ABSTRACT: Gorlovka coke ovens were designed for firing with a mixture of coke oven and a rich gas (15-20%). The nature of the rich gas is not specified. There were individual periods during which the proportion of rich gas amounted to 90%, which, however, has no deleterious effect on the uniformity of temperature distribution in the ovens, and the temperature of the under roof space was maintained on a required level (table 1). Ovens were fired with an excess air coefficient of 1.3-1.5 at a suction in the regenerator on the ascending stream 3 - 3.2mm H₂O. During 1956-1958 an increased proportion of gas coal (from 14% to 26%) was incorporated into the blend. For this reason the temperature in the heating flues was raised.

Card 1/2

Some Experience in Operating Coke Ovens Fired with a Rich Gas

Sov/68-59-10-8/24

The above measures had no noticeable effect on the quality of the coke (table 2). There are 3 tables.

ASSOCIATION: Gorlovskiy koksokhimicheskiy zavod
(Gorlovka Coking Works)

Card 2/2

Romanovskiy, V. A.

AUTHORS: Nakhodkin, N. G., Romanovskiy, V. A. 48-22-4-21/24

TITLE: The Dependence of the Coefficient of Secondary Emission in KCl on the Thickness of the Layer (Zavisimost' koeffitsiyenta vtorichnoy emissii KCl ot tolshchiny sloya)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1968, Vol. 22, Nr 4, pp. 454-455 (USSR)

ABSTRACT: The dependence of the coefficient of secondary emission on the layer thickness permits to determine the effective depth of secondary emission. Various experimental data exist in publications on the variation of the effective depth of secondary emission on the energy of the primary electrons. (reference 1) It can be maintained, that the effective depth at medium energies of the primary electrons is immediately connected with the kinetics of motion of the excited secondary electrons in the solid. In the present paper the authors investigated the dependence of the coefficient of secondary emission in KCl on the layer thickness in the interval of from 480 — 6000 eV. A beryllium coating served as a base layer, which was evaporated onto the glass in a vacuum of the order of magnitude of 10^{-8} mm of mercury column.

Card 1/5

The Dependence of the Coefficient of Secondary Emission 48-22-4-21/24
in KCl on the Thickness of the Layer

The difference between the δ of the base layer and the δ of the coating was sufficiently great, permitting highly accurate measurements. The measurements were performed with single pulses (duration $\tau = 2.5$ micro seconds) with the application of a very weak current. This permitted to avoid a charging of the surface even at room temperature. (Reference 5). The thickness was determined according to the position of the interference bands of the same intensity. Figure 1 shows the characteristic dependence of the coefficient of secondary emission. The quantity d_1 , which proved to equal $50 \text{ m}\mu$ as regards its order of magnitude, is identified by the authors as the effective depth of secondary emission. The quantity d_2 exceeds d_1 (figure 2) and is essentially dependent upon the energy of the primary electrons. The increase of the coefficient of secondary emission with a variation in thickness from d_1 to d_2 is of the order of magnitude of from 15-20 %. It can therefore be assumed, that this thickness d_2 so to speak must represent the passage of primary electrons in solids.

Card 2/3

The Dependence of the Coefficient of Secondary Emission 48-22-4-21/24
in KCl on the Thickness of the Layer

There are 2 figures and 5 references, 4 of which are
Soviet

ASSOCIATION: Kafedra elektroniki Kiyevskogo gos. universiteta im.
T. G. Shevchenko (Chair for Electronics, Kiyev State
University imeni T. G. Shevchenko)

AVAILABLE: Library of Congress

1. Secondary emission--Coefficient-dependence
2. Coatings--Applications

Card 3/3

NAKHODKIN, N.G. [Nakhodkin, M.H.]; Romanovskiy, V.A. [Romanovs'kyi, V.O.]

Kinetics of the motion of electrons in secondary emission. Part 1.
Ukr.fiz.zhur. 4 no.4:479-490 J1-Ag '59. (MIRA 13:4)

1.Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.
(Secondary electron emission)

S/109/60/005/008/012/024
E140/E355

9,4000 (1143, 1138, 1159)

AUTHORS: Nakhodkin, N.G. and Romanovskiy, V.A.

TITLE: Kinetics of Electron Motion in Secondary Emission
from Thin Metal and Semiconductor Films

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol. 5,
No. 8, pp. 1275 - 1283

TEXT: Deposition of various materials in thin wedges on various bases was used to study secondary emission of films. Two characteristic thicknesses were obtained on the curves of secondary-emission factor against depth, which are related to the path lengths of secondary and primary electrons. Electron microscope investigations of KCl film structures on various bases were performed. The dependence of the two characteristic depths on the primary electron angle of incidence was studied qualitatively. The results obtained are attributed to processes of electron reflection in the film and the base. Recommendations are made for the choice of base for studying the two characteristic depths. The existence of the two characteristic depths was first detected in 1953 by one of
Card 1/3

S/109/60/005/008/012/024
E140/E355

Kinetics of Electron Motion in Secondary Emission from Thin Metal and Semiconductor Films

the present authors (Ref. 1). The results of this and subsequent studies are now explained as follows: the first characteristic depth is connected with the conditions of motion of secondary electrons. The second characteristic depth is related to the reflection of secondary electrons from the layer and the base. By suitable choice of pairs of base and film materials, information on kinetic factors of secondary electrons can be obtained. The fraction of back-diffusing electrons increases with increase of mean atomic number of the material, which facilitates the choice of pairs of materials for the various cases which may arise in these studies. Differences in secondary-emission factor measurements by other authors can be explained by the existence of these two characteristic depths. With d greater than the first characteristic depth, the film structure does not determine the shape of the secondary-emission factor versus depth curve.

Card 2/3

S/109/60/005/008/012/024
E140/E355

Kinetics of Electron Motion in Secondary Emission from Thin
Metal and Semiconductor Films

To determine the first characteristic depth it is necessary to take base and film materials with differing secondary emission factors but equal back-diffusion factors. To determine the second characteristic depth materials with differing back-diffusion factors should be chosen. Acknowledgments are made to M.T. Kostyshin for his assistance. There are 8 figures and 41 references: 22 Soviet and 19 non-Soviet.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet imeni
T.G. Shevchenko Kafedra elektroniki
(Kiev State University imeni T.G. Shevchenko,
Department of Electronics)

SUBMITTED: December 21, 1959

Card 3/3

38911

24.6610

S/181/62/004/006/021/051
B104/B112

AUTHORS: Nakhodkin, N. G., Ostroukhov, A. A., and Romanovskiy, V. A.

TITLE: Inelastic scattering of electrons in thin layers

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1514 - 1524

TEXT: Using a generalized model of continuous losses (T. Everhart. J. Appl. Phys., 31, 1483, 1960), a theory was developed for the inelastic single scattering of fast electrons within a double-layer target. The slowing down of the electrons in the target is described

by $v^n(x) = v_0^n - c \rho x(1)$, where v_0 is the electron velocity at the surface of the target, $v(x)$ is the electron velocity after a distance x , ρ is the target density, and c is a slowing-down factor. The coefficient of inelastic scattering

$$\eta(y, a, p) = \frac{(a + p^2) a - 2p^2}{(a + 2p^2)(a + p^2)} - a \left(1 - \frac{y}{p}\right)^{\frac{a}{p^2}} \left[\frac{1 - p^2}{a + 2p^2} \left(1 - \frac{y}{p}\right)^2 + \frac{2p^2}{a + p^2} \left(1 - \frac{y}{p}\right) - \frac{p^2}{a} \right], \quad (8)$$

Card 1/3

Inelastic scattering of...

S/181/62/004/006/021/051
B104/B112

and the energy distribution of the inelastically reflected electrons

$$\frac{d\eta}{d\left(\frac{E}{E_0}\right)} = \frac{4}{a+1} \frac{E}{E_0} \left\{ 1 - \left[1 + \frac{a}{2} \left(1 - \frac{E^2}{E_0^2} \right) \right] \times \right. \\ \left. \times \left(\frac{1 + \frac{E^2}{E_0^2}}{2} \right)^a \right\} \left(1 - \frac{E^2}{E_0^2} \right)^{-1}. \quad (19)$$

are derived. Here, $y = x/R$; x is the thickness of the target; R is the distance determined by (1) with $n = 4$ and $p = \cos \vartheta$; ϑ is the angle of incidence; and $a = 6Z^2e^4N_A/m^2Ac$. The theory is applicable to light elements ($Z \leq 30$). In high-density substances it is necessary to allow for multiple collisions. Experimental results agree well with estimates using the above formulas. There are 8 figures.

Card 2/3

Inelastic scattering of...

S/191/62/004/006/021/051
B104/B112

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko
(Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: January 25, 1962

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Card 3/3

NAKHODKIN, N. G.; OSTROUKHOV, A. A.; ROMANOVSKIY, V. A.

Scattering of electrons penetrating thin films. Fiz. tver.
tela 5 no.1:41-47 Ja '62. (MIRA 16:1)

1. Kiyevskiy gosudarstvennyy universitet imeni T. G. Shevchenko.

(Electrons—Scattering)

MAKHODIN, B.G.; OSTROVNIKOV, A.A.; ROMANOVSKIY, V.A.

Inelastic electron scattering in thin films. Fiz. tver. tela
7 no.1:210-216. 7a '65. (UFA 18:3)

1. Kievskiy gosudarstvennyy universitet imeni Shevchenko.

ROMANOVSKIY, V.A., assistant

Transforming the formulas of Professor A.M.Virovets in order to solve geodetic problems involving great distances. Izv.vys.ucheb.zav.; geod. i aerof. no.1:97-100 '64. (MIRA 17:12)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii.

DOM NOV 1971 V.A. Assistant

Review of the main solutions of geodetic problems involving
long distances based on the Bessel method. Izv. vys. ucheb.
zav. geod. i aerof. no. 2:43-50 '64. (MIRA 17:9)

L. Moskovskiy institut inzhenerov geodezii, aerofotoa'yerki i
kartografi. Rekomendovana kafedroy vysshey geodezii.

ROMANOVSKIY, V.A.

Heat capacity of glass-forming crystals at low temperatures.
Zhur. fiz. khim. 36 no.11:2550-2552 N°62. (MIRA 17:5)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni
Mendeleyeva.

ROMANOVSKIY, V.A.

Effect of atomic coordination on the temperature course of heat capacity at low temperatures. Zhur.fiz.khim. 36 no.10:2252-2254
O '62. (MIRA 17:4)

1. Moskovskiy khimiko-tehnologicheskii institut imeni Mendeleeva.

ROMANOVSKIY, V.V.A.

1707. Determination of absorption coefficients of powder phosphors. V. V. A. ROMANOVSKIY. Zh. eksper. teor. fiz., 26, No. 4, 459-72 (1954) In Russian. The possibility is shown (theoretically) of evaluating the absorption coefficients of micro-crystalline solids from measurements on the diffuse reflection from powders, if the linear dimensions and refractive index of the crystals are known. J. SWLES

L 26984-65 EWT(1)/EWT(m)/T/EEC(b)-2/EWP(t)/EWP(b) IJP(c) JD/GG
ACCESSION NR: AP5003438 S/0181/65/001/001/0210/0216

AUTHORS: Nakhodkin, N. G.; Ostroukhov, A. A.; Romanovskiy, V. A. 32
31

TITLE: Inelastic scattering of electrons in thin films 4 B

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 210-216

TOPIC TAGS: inelastic scattering, electron scattering, thin film,
reflection coefficient, transparency coefficient

ABSTRACT: In view of the fact that the theory of elastic scattering developed in earlier papers by the authors (FTT v. 4, 1514, 1962 and v. 5, 41, 1963) yields results that are somewhat too high for the flux density of the unscattered electrons and for the coefficient of inelastic reflection in the case of heavy substances, the authors have modified in the present paper the approximate theory for large-angle scattering of electrons, taking a more consistent account of the conditions of the fast-electron emission. An integral transport

Card 1/2

L 26984-65

ACCESSION NR: AP5003438

equation is derived with an account of the conditions of motion and is solved for the case of normally and obliquely incident beams. The thickness dependence of the transparency coefficient is calculated for normal incidence. The connection between the total range and the extrapolated range is examined and it is noted that the extrapolated range coincides with the electron scattering length. The dependence of the coefficient of reflection on the atomic number of the target is calculated and found to agree with the experimental data for both small and large atomic numbers. Orig. art. has: 5 figures and 18 formulas.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiev State University)

SUBMITTED: 13Jul64

ENCL: 00

SUB CODE: NP, SS

NR REF SOV: 005

OTHER: 009

Card 2/2

28305

S/081/61/000/016/008/040
E118/B101

15-8180

AUTHORS: Romanovskiy, V. A., Tarasov, V. V.

TITLE: Structure of the sulfides of the elements of group V of Mendeleev's periodic system and their tendency to vitrification

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 16, 1961, 43, abstract 16B290 (Sb. "Stekloobrazn. sostoyaniye". M.-L., AN SSSR, 1960, 474-478. Diskus., 478-479)

TEXT: On the basis of the conceptions of the polymeric structure of glass, the authors verify the assumption that the tendency of inorganic polymers to vitrification is the stronger, the more covalent is the polymeric bond and the greater is the kinematic freedom of the structural skeleton in the crystalline state referred to the deformation of the valence angles and to the torsions of the atomic groups relative to the polymeric bonds. The suggestion is made to characterize this freedom by the average coordination number (or average polymer number) of the atom in the polymer lattice site. The data obtained for the specific heats of As_2S_3 , Sb_2S_3 , and Bi_2S_3 at

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Structure of the sulfides . . .

28305
S/081/61/000/C16/008/C40
B118/B101

low temperatures (RZhKhim., 1961, 2E235; 5E289) are compared with values obtained from V. V. Terasov's equations. In the authors' opinion, the satisfactory agreement confirms the correctness of the conceptions of the dynamic isolation of macromolecules. From the crystalline structure and the interrelations of the force factors, it was concluded that the metallic character of bonds increases in the sequence As_2S_3 , Sb_2S_3 , and Bi_2S_3 . It was found that the kinematic rigidity of the structural skeletons of As_2S_3 , Sb_2S_3 , and Bi_2S_3 is expressed by the "average polymer coordination numbers" 2.4; 3.5; 5.6, respectively. The difference in the ability of the compounds investigated to form glass is explained by the causes mentioned above. [Abstracter's note. Complete translation.]

Card 2/2

81649

S/181/60/002/06/39/050
B006/B056

24.7600
AUTHORS:

Romanovskiy, V. A., Tarasov, V. V.

TITLE:

The Specific Heat of Arsenic-, Antimony-, and Bismuth Trisulfides in Connection With Their Structure and Their Physical and Chemical Properties

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 6, pp. 1287 - 1293

TEXT: In the introduction, the authors describe the results obtained by investigations of Ito (Ref. 1) and a manifold of details of the As_2S_3 structure and the chemical bond. On the basis of Figs. 1-3, structure, types of bond, and their transitions (s, p, sp, sp_2 , sp_3) are studied, and the results, above all with respect to the interatomic distances, obtained by various authors are compared. In part 2 of the paper, experimental and theoretical results obtained by determining the specific heat are compared. The results of specific heat measurements carried out at low temperatures (Ref. 12) were evaluated by means of formulas obtained by Tarasov in Ref. 11, and satisfactory agreement was found. Tables 1-3

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81649

The Specific Heat of Arsenic-, Antimony-, and
Bismuth Trisulfides in Connection With Their
Structure and Their Physical and Chemical Properties

S/181/60/002/06/39/050
B006/B056

give the specific heats of As_2S_3 , Sb_2S_3 , and Bi_2S_3 for various temperatures. In part 3 of the paper, the characteristic temperature and some properties of chain crystals are discussed. The force coefficients β (of the simplest, straight, and monatomic chains) and k (of the double bond in diatomic molecules) are studied, and some results are compared with those obtained by Western authors, and a number of Western data were published (Tables 4-6). The authors then pass over to semiconductor properties, and the theory by A. F. Ioffe concerning the part played by the short-range order and the connection between the semiconductor properties and the interaction character of neighboring atoms is discussed. According to Ref. 18, it is assumed that the semiconductor properties of matter are connected with the presence of predominantly covalent bonds. Figs. 4 and 5 show the dependence of the width of the forbidden band ΔE (in eV) on β for impurity sulfides and semiconductors of the germanium series (the ΔE values are taken from Ref. 19 and G. I. Rekalova - Ref. 3). These functions are found to take an analogous course for both series of compounds; they are linear in first

Card 2/3

X

5.4700

81650
S/181/60/002/06/40/050
B006/B056

AUTHORS: Romanovskiy, V. A., Tarasov, V. V.

TITLE: The Low-temperature Specific Heat and the Entropy at 298.1°K
of Sulfides of the Elements of the Fifth Group of the Periodic
System by D. I. Mendeleyev

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 6, pp. 1294 - 1299

TEXT: The authors measured the specific heat within the range of from 65 to 300°K by means of an adiabatic calorimeter. The calorimeter ampoule used is shown in cross section in Fig. 1, and is described in the introduction. Fig. 2 shows the circuit used to measure the current capacity, which is also described in detail; the errors that may occur in the individual components of the circuit are mentioned. The total relative error in measuring the specific heat is found not to exceed 0.33 %. The results obtained by control tests were compared with American data (Table 1), and were found to be satisfactory. The measurements themselves were carried out on polymeric crystalline modifications of sulfides; for the purpose of determining the specific heat of As_2S_3 and Sb_2S_3 the minerals orpiment and

Card 1/2

4

81650

The Low-temperature Specific Heat and the Entropy $S/181/60/002/06/40/050$
at 298.1°K of Sulfides of the Elements of the B006/B056
Fifth. Group of the Periodic System by
D. I. Mendeleyev

antimonite were used as well as an amorphous powder of Bi_2S_3 , the further treatment of which is described. The results obtained by measuring the specific heats (c_p) of the investigated crystalline samples of As_2S_3 , Sb_2S_3 , and Bi_2S_3 are given in Tables 2, 3, and 4, and Table 5 gives the entropy values. For the calculation of entropy equations obtained by V. V. Tarasov were used (for extrapolation to 0°K). The errors are about 4 %. Ye. S. Itskevich and Ye. F. Stroganov are mentioned. There are 2 figures, 5 tables, and 5 references: 4 Soviet.

ASSOCIATION: Khimiko-tekhnologicheskii institut im. D. I. Mendeleyeva,
Moskva (Institute of Chemical Technology im. D. I. Mendeleyev
Moscow)

SUBMITTED: July 14, 1959

Card 2/2

S/076/62/036/011/020/021
B101/B180

AUTHOR: Romanovskiy, V. A.

TITLE: Specific heat of glass-forming crystals at low temperatures

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 11, 1962, 2550 - 2552

TEXT: The values for the specific heats of β -cristobalite (SiO_2), B_2O_3 , and GeO_2 were taken from papers by T. C. Anderson (J. Amer. Chem. Soc., 58, 568, 1936), E. C. Kerr, H. N. Hersch, H. L. Johnston (J. Amer. Chem. Soc., 72, 4738, 1950), and E. G. King (J. Amer. Chem. Soc., 80, 1799, 1958), and the diagrams Θ_D/Θ versus T/Θ_D were plotted. A considerable deviation from Debye's theory was observed. On the other hand, good agreement was found with the one-dimensional function of specific heat according to V. V. Tarasov (Dokl. AN SSSR, 46, 22, 1945; Novyye voprosy fiziki stekla (New problems of glass physics), M., 1959). SiO_2 followed the function Θ_1/Θ versus T/Θ_1 in the range of 74 - 297°K, GeO_2 in the range of 63 - 236°K, and B_2O_3 in the range of 96 - 270°K. These compounds

Card 1/2

L 52776-65 Efi(1)/EPA(m)-2/EEC(t)/EWA(m)-2 / Pz-6/Pi-4 LJP(c) AT

ACCESSION NR: AP5010753

UR/0181/65/007/004/1256/1259

AUTHOR: Nakhodkin, N. G.; Ostroukhov, A. A.; Romanovskiy, V. A.

TITLE: Effect of atomic screening factor on inelastic reflection of electrons

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1256-1259

TOPIC TAGS: screening factor, inelastic reflection, electron reflection, electron energy distribution

ABSTRACT: This is a continuation of earlier work by the authors (FTT v. 4, 1514, 1962 and v. 5, 41, 1963), in which an approximate theory was developed for the calculation of the inelastic reflection and transparency coefficient and for the calculation of the energy distribution of inelastically scattered electrons. The results of this theory disagree with experiment at large angles of incidence of the primary beam ($> 60^\circ$) and the authors therefore undertook to take into account the screening effect. The same calculation procedure was employed as in the earlier work. The more accurate calculation shows that in the region of large angles of incidence, both methods give approximately the same result for the angular dependence of the coefficient of inelastic reflection, so that allowance for the screen-

Card 1/2

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ACCESSION NR: AP5010753

ing does not change essentially the previous results for the angular dependence of the elastic reflection coefficient, and the discrepancy at large angles still remains. Even if further calculations show that the effective cross section at small scattering angles must be modified, the influence of the atomic form factor on the angular dependence of the elastic reflection coefficient should not be large. Orig. art. has: 2 figures and 3 formulas.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiev State University)

SUBMITTED: 17Nov64

ENCL: 00

SUB CODE: NP

NR REF SOV: 005

OTHER: 005

282
Card 2/2

ROMANOVSKY, V. B.

W.B.

Romanovsky, W. Sur certains théorèmes concernant la méthode des moindres carrés. C. R. (Doklady) Acad. Sci. URSS (N.S.) 51, 263-265 (1946).

Soient $x_1, \dots, x_n$ des variables aléatoires normales et indépendantes ayant pour moyennes $a_i = \sum_{j=1}^r a_{ij} \alpha_j$, $i = 1, \dots, n$, $r < n$, et pour dispersions $\sigma_i^2 = \sigma^2 p_i^{-1}$, où les $p_i > 0$ sont connus, σ est inconnu et la matrice des a_{ij} a le rang r , le plus grand possible. Soit S_0 le minimum de $S = \sum_{i=1}^n p_i (x_i - a_i)^2$ avec $\alpha_i = \alpha_i^0$. Soit $\theta = c_1 \alpha_1 + \dots + c_r \alpha_r$ et $T = c_1 \alpha_1^0 + \dots + c_r \alpha_r^0$, où les c sont arbitraires. Alors l'auteur indique (1) que les quantités $x_i = S_0^{1/2} \epsilon_i$ et $x_i = \sigma^{-1} [T - \theta] (-m\Delta/\Delta_0)^{1/2}$, où $m = n - r$, possèdent les répartitions indépendantes χ^2 .

$P(x_i, m) = x_i^{-1} e^{-1/x_i^2} / 2^{(m-1)/2} \Gamma(m/2)$, $P(x_i, 1) = x_i^{-1} e^{-1/x_i^2}$;

(2) que la quantité $t = S_0^{-1/2} [T - \theta] (-m\Delta/\Delta_0)^{1/2}$ a la distribution de "Student,"

$S(t, m) = C(1 + t^2/m)^{-(m+1)/2}$, $C = \Gamma((m+1)/2) / \Gamma(m/2) (m\pi)^{1/2}$.

Ici Δ désigne la déterminante des A_{ij} et Δ_0 désigne Δ augmentée à la droite avec la colonne $c_1, \dots, c_r$, 0 et au bas avec la règle $c_1, \dots, c_r, 0$; $A_{ij} = \sum_{k=1}^r p_k a_{ik} a_{jk}$. E. Bodewig.

Source: Mathematical Reviews,

Vol. 8, No. 1

ROMANOVSKY, W.: On Certain Theorems About the Method of Least Squares. *W.B.*

ROMANOVSKIY, V. S.,

Romanovskiy, V. S., - "Certain problems of the transition processes in electric circuits," Sbornik trudov Leningr. elektrotekhn. inst. svyazi im. Bonch-Bruевичa, Issue 5, 1949, p. 81-90

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

ROMANOVSKIY, V. B.

37313. Perakhodnye protsessy v elektricheskikh tseyakh. Metod kompleksnykh i sim bolicheskikh amplitud. (Doklad na nauch-tekhn. Konferentsii leningr Elektrotekhn in-ta svyazi im bonch-bruevicha, fevr. 1948 g.) Sbornik trudov leningr. Elektrotekhn. In-ta svyazi im. Bonchbruevicha vyp. 6, 1949, s. 97-114

30: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

ROMANOVSKIY, V. B.

USSR/Electricity - Literature
Education

Jun 53

"Discussion on a Textbook of Theoretical Electrical Engineering for Higher Schools," Prof. V.B. Romanovskiy, Dr Tech Sci (Leningrad); Prof. R.A. Voronov, Dr Tech Sci (Tomsk Electromech Inst of Rwy Transport Engrs), G.Ye. Pukhov, Dr Tech Sci, Engrs B.A. Borkovskiy and V.N. Sosunov (all from Tomsk Polytech Inst im Kirov)

Elektrichestvo, No 6, pp 68-70

Contains (a) editorial statement that this is start of discussion on creation of high-quality text on theoretical elec eng, (b) comment by

268T56

Romanovskiy on book "Theoretical Bases of Electrical Engineering" / "Teoreticheskiye osnovy elektrotekhniki" by P.I. Kalantarov and L.R. Neyman, (c) comment by Voronov et al. on book "Fundamentals of Electrical Engineering" / Osnovy elektrotekhniki by K.A. Krug.

268T56

ROMANOVSKIY, V.B., doktor tekhnicheskikh nauk, professor.

Recurrent formulas for calculating some elliptic integrals containing
trigonometric functions of multiple arcs. Sbor.trud.Len.elek.inst.
sviazi no.1:3-8 '56. (MIRA 10:1)

(Functions, Elliptic)

ROMANOVSKIY, V.B., doktor tekhnicheskikh nauk, professor.

Constructing representations of piece-wise continuous functions.

Sbor.trud.Len.elek.inst.sviazi no. 1;9-15 '56.

(MLRA 10:1)

(Functions)

ZHDANOV, I.M.; ROMANOVSKIY, V.B.; DOLUKHANOV, M.P.; ZLOTNIKOV, S.A.;
KONDRAT'YEV, A.G.; ODNOL'KO, V.V.; ROGITSKIY, V.Yu.; FOMICHEV,
I.N.

Professor P.V. Shmakov. Elektrichestvo no.1:94 Ja '56. (MLRA 9:3)
(Shmakov, Pavel Vasil'evich, 1885-)

ROMANOVSKIY, V.B.

AUTHOR
TITLE

ROMANOVSKIY, V.B., Prof., Dr. techn. sc.

105-8-9/20

Concerning a Numerical Method for Calculating Certain Electric Circuits
(Po povodu chislennogo metoda rascheta nekotorykh elektricheskikh
tsepey. Russian)

PERIODICAL

Elektrichestvo, 1957, Nr 8, pp 47 - 48 (U.S.S.R.)

ABSTRACT

This concerns the paper by V.M. Bondarenko and G.Ye. Pukhov in Elektrichestvo, 1957, Nr 8, pp 44 - 46. It is shown here that this method may be generalized, if the foundation of the theory for calculating a linear circuit with any EMF-number is approached from a somewhat different point of view, and that the class of circuits which is calculated according to that method can be enlarged. For example, a circuit with n branches shall be calculated. It is assumed that one of the current intensities, i.e. I_1 , is known. Then $n-1$ equations will be sufficient for the determination of the other $n-1$ current intensities, the members containing I_1 being brought to the right side of the equations. The solutions found for the current intensities must satisfy the non-used equation. This non-used equation is considered an equation which was set up for any node f_1 on the basis of Kirchhoff's 1st law. Such a calculation is carried out and it is demonstrated that, if a resistance is inserted into the circuit of the paper by Bondarenko and Pukhov (i.e. into the branch ad), it will not be possible to calculate the circuit according to the method

Card 1/2

ROMANOVSKIY, V. B.

"Transient Phenomena in Electrical Circuits," Sbornik Trudov LEIS imeni Bonch-Bruyevich, No 6, 1949.

S/044/61/000/001/002/013
C111/C222

16.3400

AUTHOR: Romanovskiy, V.B.

TITLE: On the introduction of a symbolic function in the practice of calculations

PERIODICAL: Referativnyy zhurnal, Matematika, no.1, 1961, 29, abstract 1B 124 ("Tr.Leningr.elektrotekhn.in-ta svyazi", 1959, vyp 5(42), 3-18)

TEXT: The author proposes to construct the solution of the linear differential equation $Lu = f$, where $f(x) = a_0 + a_1x + a_2x^2 + \dots$ is an entire function, by starting from the solution u^* of the same equation with the right-hand side $f^*(ax)$, where $f^*(x)$ is an entire function, and a is a parameter. The function u is developed into a series in terms of powers of a , and a^k is replaced by a_k/a_k^* . In examples (problems for equations with constant coefficients) the functions e^x and $\sin x$ play the part of $f^*(x)$. In an analogous manner the author solves two problems belonging to the questions of the harmonic synthesis.

[Abstracter's note: Complete translation.]

Card 1/1

ALEKSEYEV, A.Ye.; ATABEKOV, G.I.; BRON, O.B.; GORODSKIY, D.A.; KOSTENKO,
M.P.; KURENEV, S.I.; NEYMAN, L.P.; POLIVANOV, K.M.; REYNGOL'DT,
Yu.A.; ROMANOVSKIY, V.B.

Professor A.E. Kaplianskii; on his 60th birthday. Elektrichestvo
no.6:92 Je '58. (MIRA 11:6)
(Kaplianskii, Aleksandr Evseevich, 1898-)

YEFIMOV, V.I.; KHUDYAKOV, N.V.; SBITNEV, L.P.; ~~ROMANOVSKIY, V.E.~~;
KHOLIN, I.R.; POPOV, V.I.; OSIPOV, G.P.; PISKAREV, V.S.;
AGAFONOV, Ye.F.; DORODNOV, P.G.; STRUKACHEV, V.I.; ZAYTSEV,
Yu.A.

A.A.Klimov's book "Electricity in animal husbandry." Reviewed
by V.I.Efimov and others. Elektrichestvo no.9:87-88 S '56.
(MLRA 9:11)

1. Kafedra primeneniya elektricheskoy energii v sel'skom kho-
zyaystve Stalingradskogo sel'skokhozyaystvennog instituta (for
Yefimov, Khudyakov, Sbitnev, Romanovskiy, Kholin). 2. Kafedra
primeneniya elektroenergii v sel'skom khozyaystve Saratovskogo
instituta mekhanizatsii sel'skogo khozyaystva imeni Kalinina
(for Popov, Osipov, Piskarev, Agafonov, Dorodnov, Strukachev,
Zaytsev). (Electricity in agriculture) (Stock and stockbreeding)

ROMANOVSKIY, V.E.

AUTHOR: Romanovskiy, V.E., Engineer

110-4-3/25

TITLE: Designing the Mechanical Characteristics of Electric Motors for Vibration Pile-drivers (K raschetu mekhanicheskikh kharakteristik elektrodvigatelye vibropogruzhatel'nykh)

PERIODICAL: Vestnik Elektromyshlennosti, 1958, No. 4, pp. 9 - 11 (USSR).

ABSTRACT: The vibration method of pile-driving has become widely used but difficulties are experienced in selecting the driving motor. In one case, the motors were grossly overloaded and soon failed. Various kinds were tested in service including standard series motors of 22-75 kW, two types of crane motor of 22 and 25 kW and imported motors of 30 kW. It was at first thought that crane motors would be best because of their drooping characteristics and high torque. They operate stably even at 60% rated speed without being grossly overloaded, whereas standard motors tended to stall because the pile resonates with the ground and increases the static torque during starting. The disadvantages of crane motors turned out to be that the speed reduction impaired the operation of the pile-driver. A number of investigations were made to determine the desirable mechanical characteristics of the driving motor. At starting, the greatest torque occurs when the system consisting of the pile

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110-4-3/25

Designing the Mechanical Characteristics of Electric Motors for
Vibration Pile-drivers

and the ground is in resonance. When the motor runs up, the frequency of the pile varies over a wide range and resonances may occur at various speeds. These critical speeds depend upon the depth of the piling and when resonances occur, the motor will stall if its torque is not great enough. Mathematical expressions were formulated for the static torque at any frequency given the characteristics of the vibration pile-driver. Some of the constants are derived from tests made in waterlogged ground. Assumptions concerning the elasticity of the ground are stated. The expressions are used to analyse the operation of driving motors. Worked examples are given for two types of motors.

The mechanical characteristics of the motors are graphed; dotted lines show the starting torque required under different conditions. The chain-dotted curve shows the greatest torque required for a given pile-driver. The results indicate that motors series MTK (crane motors), with their high overload capacity and drooping characteristics, always worked on the stable part of the characteristic and were not so overloaded as other types of motors. A motor for vibrating pile-driver type VП-2 should develop a high torque at 50 - 60% rated speed.

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110-4-3/25

Designing the Mechanical Characteristics of Electric Motors for
vibration Pile-drivers

This condition is satisfied by motors with high starting
torque, which are accordingly recommended for this service.
There is 1 figure.

ASSOCIATION: Stalingrad Agricultural Institute (Stalingradskiy
sel'skokhozyaystvennyy institut)

SUBMITTED: September 30, 1957

AVAILABLE: Library of Congress
Card 3/3

ROMANOVSKIY, V.E.

Necessary maximum torque for drives of vibration pile drivers.

Izv. vys. ucheb. zav.; elektromekh. 1 no.4:67-81 '58. (MIRA 11:8)

(Electric motors, Alternating current) (Piling (Civil engineering))

ROMANOVSKIY, V. E., Candidate Tech Sci (diss) -- "The computation of nominal power and mechanical characteristics of the input of a vibro-loader". Stalingrad, 1959. 20 pp (Min Agric, Stalingrad Agric Inst), 150 copies (KL, No23, 1959, 168)

ROMANOVSKIY, V.E., inzh.

Calculating the mechanical characteristics of the electric motor of
vibrating pile drivers. Vest. elektroprom. 29 no.4:9-11 Ap '58.
(MIRA 11:4)

1. Stalingradskiy sel'skokhozyaystvennyy institut.
(Piling (Civil engineering)) (Electric motors, Induction)

ROMANOVSKIY, V.F.

S/169/61/000/011/027/065
D228/D304

AUTHORS: Alekseyev, F.A., Yerozolinskiy, B.G., Bespalov, D.F.,
Bondarenko, L.N., Boytsik, L.P., Popov, N.V.,
Khaustov, A.I., Romanovskiy, V.P., Shimelevich, Yu.S.
Shkol'nikov, A.S., and Yudin, L.I.

TITLE: The result of applying neutron impulse methods and
apparatus for investigating borehole logs

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1961, 34,
abstract 11A304 (V sb. Yadern. geofiz. pri poiskakh
polezn. iskopayemykh, M., Gostoptekhizdat, 1960, 3-20)

TEXT: A borehole impulse generator of neutrons is described toge-
ther with the method of impulse-neutron neutron-logging (INNL). A
description is given for the electronic layout of the borehole ge-
nerator of neutrons and the surface apparatus for impulse neutron
logging. During laboratory tests of the generator a stable mean neu-
tron yield of $\sim 2 \times 10^7$ neutr./sec. was obtained at 100 kv. of acce-
lerating voltage in the tube. The impulse duration amounted to 100

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The result of applying neutron ...

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u sec, the transmission frequency being 400 c/s. The neutron generator was used in the commercial testing of INNL. INNL readings against oil-bearing beds exceed by 10 times those for aquiferous beds containing mineralized water, at a delay time of 1000 μ sec. Certain impediments and limitations of thermal impulse neutron-logging in different oil- and water-saturated beds are indicated, and the requirements for the apparatus are stated. Further prospects are indicated for the application of impulse neutron generators. [Abstractor's note: Complete translation].

Card 2/2

KALANTAROV, P.L.; NEYMAN, L.R. [authors]; ROMANOVSKIY, V.G., doktor tekhnicheskikh nauk (Leningrad); VORONOV, R.A., doktor tekhnicheskikh nauk; PUKHOV, G.E., doktor tekhnicheskikh nauk; BORKOVSKIY, B.A., inzhener; SOSUNOVA, V.N., inzhener [reviewers]

Textbook of theoretical electrical engineering for schools of higher education: "Theoretical basis of electrical engineering." Elektrichestvo no.6: 68-70 Je '53. (MLR 6:7)

1. Tomskiy elektromekhanicheskiy institut inzhenerov zheleznodorozhnogo transporta (for Voronov). 2. Tomskiy politekhnicheskiy institut imeni Kirova (for Pukhov, Borkovskiy and Sosunova).

(Electric engineering) (Kalantrov, P.L.) (Neiman, L.R.)

PHASE I BOOK EXPLOITATION

SOV/6522

Romanovskiy, V. I.

Matematicheskaya statistika. kn. 2: Operativnyye metody matematicheskoy statistiki (Mathematical Statistics. v. 2: Operative Methods of Mathematical Statistics). Tashkent, Izd-vo AN UzSSR, 1963. 794 p. 1000 copies printed.

Sponsoring Agency: Akademiya nauk UzSSR. Institut matematiki im. V. I. Romanovskogo.

Resp. Ed.: T. A. Sarymsakov, Academician, Academy of Sciences of Uzbek SSR.; Ed.: V. N. Kiseleva; Tech. Ed.: Z. P. Gor'kovaya.

PURPOSE: The book is intended for professional statisticians, senior students and aspirants, and for a wide group of persons working with methods of mathematical statistics.

COVERAGE: The book is the second volume of the monograph by the late Soviet Statistician V. I. Romanovskiy. The

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Mathematical Statistics (Cont.)

SOV/6522

manuscript was corrected and prepared for publication posthumously under the guidance of Academician T. A. Sarymsakov by the following members of the Mathematics Institute im. V. I. Romanovskiy of the Academy of Sciences, Uzbek SSR: R. Kh. Dieveyev, S. V. Nagayev; T. L. Malevich; V. I. Ronzhin; M. I. Eidel'naut. The book presents in detail the classical methods of mathematical statistics and their numerous applications in science, engineering, and practice. There are 151 references: 114 English, 2 German, 30 Soviet, 2 Italian and 3 French.

TABLE OF CONTENTS:

From the Institute of Mathematics im. V. I. Romanovskogo
of the Academy of Sciences Uzbek SSR

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PART III. OPERATIVE METHODS OF MATHEMATICAL STATISTICS

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2

ROMANOVSKIY, V.I.; SIRAZHDINOV, S.Kh., otv. red.; KISELEVA,
V.N., red.

[Selected works] Izbrannye trudy. Tashkent, Nauka.
Vol.2. 1964. 388 p. (MIRA 17:11)

1. Chlen-korrespondent AN Uzbekskoy SSR (for Sirazhdinov).

DUMPE, V.E., kand. tekhn. nauk; NEFEDOV, B.A.; ROMANOVSKIY, V.I.;
USOL'TSEV, A.N.

Semiautomatic device for checking the position of hole axes.
Mashinostroitel' no.6:12-13 Je '63. (MIRA 16:7)

(Electric instruments)

KALINKIN, N.B.; ROMANOVSKIY, V.I.; SIDOROV, I.S.

Cutting-tool holder with a rebound mechanism. Mashinostroitel'
no.6:32 Je '64. (MIRA 17:8)